

**S10 Table.** The enrichment analysis of the top 100 genes that have the highest gene average gravitation score between cancer gene census (CGC) and non-CGC.

Cancer type	Number of CRF genes	Number of non-CRF genes	Adjusted p-value ( <i>q</i> )	Odd ratio	Number of CRF genes	Number of all non-CRF genes
BRCA	9	91	$4.5 \times 10^{-3}$	4.1		
COAD	8	92	0.01	3.6		
GBM	9	91	$4.5 \times 10^{-3}$	4.1		
HNSC	8	92	0.01	3.6		
KIRC	9	91	$4.5 \times 10^{-3}$	4.1	487	19980
LUAD	6	94	0.03	2.6		
LUSC	10	90	$1.1 \times 10^{-3}$	4.6		
OV	8	92	0.01	3.6		
UCEC	12	88	$4.1 \times 10^{-5}$	5.7		